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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,295	04/19/2006	Masahiko Yoshida	Q93091	9421
72875	7590	11/14/2008		
SUGHRUE MION, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037			EXAMINER WILLIAMS, KIMBERLY A	
			ART UNIT	PAPER NUMBER
			2625	
			NOTIFICATION DATE	DELIVERY MODE
			11/14/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/576,295	Applicant(s) YOSHIDA, MASAHIKO	
	Examiner Kimberly A. Williams	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32 and 33 is/are allowed.
- 6) ☒ Claim(s) 1-31 and 34-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: Page 25, lines 17-18, the claim numbers should be deleted. Appropriate correction is required.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-31 and 34-36 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 25 of copending Application No. 10/576493 (US 2007/0146740).

This is a provisional obviousness-type double patenting rejection.

Both claims 1 teach a printing method for printing an image on a medium. Both claims 1 teach printing a correction pattern. The present invention ('295) teaches that the

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correction pattern is printed "based on a first gradation value". Both claims 1 teach measuring a darkness of the correction pattern. '295 teaches that the darkness is measured dot line by dot line, where in the copending application ('740) the darkness is measured line by line. Both claims 1 teach printing an image, while correcting the darkness of each line in accordance with correction values. '295 teaches correcting using first and second gradation values. Claim 34 of '295 recites a printing system comprising nozzles which corresponds with the printing apparatus comprising nozzles of claim 25 of '740. The claimed controller in both applications prints a correction pattern and prints an image while correcting darkness. '295 recite correcting each dot line. '740 corrects each line. The above described differences between the claims are obvious variations of each other. Claims 2-31,34 and 36 are rejected for depending on claim 1.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1,2,5,6,15,19,20,27,29,31 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsubara et al. (EP 0955768) as cited by applicants.

Regarding **claim 1**, Matsubara et al. teaches a printing method for printing an image on a medium, comprising the following steps: printing a correction pattern (fig. 10, test pattern) based on a first gradation value (density) by ejecting ink from a plurality of

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nozzles (34) moving in a predetermined movement direction (X) and forming a plurality of dot lines in an intersecting direction (Y) that intersects the movement direction; obtaining, for each dot line, first information (fig. 13, para. 64, Dn (i) for each orifice/dot yields AVE_n) corresponding to the first gradation value by measuring a darkness of the correction pattern dot line by dot line (fig. 9, para 61-62, the test pattern is read out); and printing (fig. 15, recording head 34) an image constituted by a plurality of corrected dot lines on the medium by correcting each dot line in accordance with the first information and second information (fig. 13, para. 64, P_n) corresponding to a second gradation value (correcting ratio) that is different from the first gradation value.

Regarding **claim 2**, Matsubara et al. teaches that a correction value (fig. 13, S94, P_n(i), mean value of the correcting ratio) is calculated for each dot line based on the first information and the second information; and an image that is constituted by a plurality of the dot lines that have been corrected respectively in accordance with the correction value is printed on the medium (fig. 15, recording head 34).

Regarding **claim 5**, Matsubara teaches that a plurality of the dot lines are formed in the intersecting direction through alternate repetition of a dot formation operation of forming dots on the medium by ejecting ink from the plurality of nozzles moving in the movement direction and a carrying operation of carrying the medium in the intersecting direction intersecting the movement direction (para. 54 recording head 34 moves in X direction, paper moves in Y direction; figs. 1,8).

Regarding **claim 6**, Matsubara teaches that a plurality of the nozzles (34) are provided for each color of the ink (para. 52, CMYK); the correction value is calculated for each color by printing the correction pattern in each color; and the darkness of the image is corrected for each color in accordance with the correction value of each color (para. 58 test pattern is for each color; para. 64 one by one calculations are performed for each color).

Regarding **claim 15**, Matsubara teaches that the darkness measurement value is a grey-scale measurement value (para. 58, the test pattern is recorded with a constant gray level of each color).

Regarding **claim 19**, Matsubara teaches that the darkness of the correction pattern is measured using a darkness measuring device that measures darkness optically (inherently taught as evidenced by the fact that para. 61 teaches that the test pattern is read out in the same manner as the read-out of the ordinary operation of the copy machine, which is illustrated by the read out element 125 on the CCD 124 of fig. 1).

Regarding **claim 20**, Matsubara teaches that the correction patterns are printed based respectively on specified gradation values (for CMYK) including the first gradation value and the second gradation value, for each of the specified gradation values (paras. 58, 62 a test pattern for each of the four colors are printed and read out).

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Regarding **claim 27**, Matsubara teaches that the image data for printing the image includes a gradation value (density) for each dot formation unit (orifice/pixel/dot) formed on the medium; and the darkness of each of the dot lines is correct by correcting the gradation value of each of the formation units (para. 64, there is a gradation value (density $D_n(i)$ for each orifice/dot/pixel and correction is made for each).

Regarding **claim 29**, Matsubara teaches that a dot creation ratio (mean value of the correcting ratio $P_n(i)$) for a gradation value (density) is corrected based on the first information ($D_n(i)$ which yields AV_n) and the second information (P_n).

Regarding **claim 31**, Matsubara teaches that a plurality of the nozzles (34) are provided for each color of the ink (para. 52, CMYK); the first information ($D_n(i)$ which yields AV_n) is obtained for each color by printing the correction pattern based on the first information for each color; and each dot line is corrected, color by color, in accordance with the first information and the second information (P_n) (para. 58 test pattern is for each color; para. 64).

Regarding **claim 34**, Matsubara et al. teaches a printing system (fig. 7) for printing an image on a medium, comprising: a plurality of nozzles (34) moving in a predetermined movement direction (X); and a controller (fig. 15, 115) the controller: printing a correction pattern (fig. 10, test pattern) based on a first gradation value (para. 58, test pattern is recorded with a constant gray level) by ejecting ink from the plurality of

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moving nozzles and forming a plurality of dot lines in an intersecting direction (Y) that intersects the movement direction; obtaining, for each dot line, first information (fig. 13, para. 64, Dn (i) for each orifice/dot yields AVE_n) corresponding to the first gradation value (density) by measuring a darkness of the correction pattern dot line by dot line (fig. 9, para 61-62, the test pattern is read out); and printing (fig. 15, recording head 34) an image constituted by a plurality of corrected dot lines on the medium by correcting each dot line in accordance with the first information and second information (fig. 13, para. 64, P_n) corresponding to a second gradation value (correcting ratio) that is different from the first gradation value.

Allowable Subject Matter

1. Claims 32 and 33 are allowed.
2. Claims 3,4,7-14,16-18,21-26,28,30,35 and 36 are objected to as being dependent upon a rejected base claim, but would be allowable if the double patenting rejection is overcome, and if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly A. Williams whose telephone number is (571) 272-7471. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (571) 272-7402. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kimberly A Williams/
Primary Examiner, Art Unit 2625

KAW
October 31, 2008